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# Reduce the Cost of e-Education with an Enterprise-Wide Solution

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## New Study Reveals Significant Cost-Savings for Enterprise Solutions

As the e-Education industry matures, the number of faculty and students maximizing the Internet for teaching and learning continues to grow. At the same time, institutions struggle to scale their infrastructure to cost-effectively meet demand. This endeavor to scale is directly caused by the newly emerging e-Education value chain, which includes: software; hardware; administrator support and maintenance; student, faculty, and administrator training; and pedagogical support. A closer look at this value chain reveals that typically more than 80% of e-Education expenses are directly related to infrastructure and support costs, making large-scale growth a costly proposition for institutions using entry-level course management systems.

By its very nature, an entry-level system does not cost-effectively scale—and as a result requires a disproportionate increase in per user infrastructure costs (for servers, administrators etc.) to meet growing demand. Put simply, growth in the number of users and courses on an entry-level platform is met with an equal (or greater) increase in per-user and per-course costs. Conversely, an enterprise-wide solution is designed with an efficient, scalable architecture and can accommodate exponential growth in courses and users while reducing per user infrastructure costs.

### **Reducing Per User Costs with an Enterprise Solution**

In a landmark study (*A Comparative Analysis of the Value of Enterprise-Wide Solutions to Entry-Level Course Management Systems*) conducted by Kaufman Research & Consulting Group, participating institutions confirmed that enterprise-level course management solutions offer superior value and significant per-user cost advantages compared to entry-level course management systems. These important findings reinforce the growing anecdotal evidence that enterprise-grade course management solutions reduce the total cost of ownership for institutions of any size. This dramatic decrease in total cost of ownership can be measured by significant declines in costs per course and costs per user.

The study also reveals that examining per-user costs provides a more accurate metric for evaluating return on investment (ROI) than simply

## Key Findings

- Study participants project a 21% decrease in per-user administrator costs due to advanced data management capabilities.
- Institutions anticipate a 51% cost-savings in per-user support and maintenance costs.
- Per-user training costs have already decreased by 41% and are projected to decrease by 59% within one year of implementing the enterprise solution.
- 100% of survey participants reported that the enterprise-level solution -Blackboard 5 Level Three -offers greater value than entry-level course management systems.



<sup>1</sup> The cost per course and the cost per user are determined by: adding the number of administrators required, administrator salaries, the percentage of administrator time spent supporting Blackboard, the number of servers required, and the cost for those servers; and dividing that sum by the number of users or courses, respectively.

considering the aggregate cost of implementing an enterprise-grade solution.<sup>1</sup> By comparing per-user costs for entry-level and enterprise solutions, institutions can better understand the true cost of scaling an e-Education program to meet growing demand.

For example, institutions that participated in the study projected a 129% increase in the number of users and a 185% increase in the number of courses created within the first year of running the enterprise solution. Contrary to many assumptions, these enterprise-level clients anticipate that their total **costs per-user will decrease by 45%** within the first year of moving from an entry-level course management system to an enterprise-level platform. These results validate the assumption that a scalable enterprise solution can help institutions deliver increased capacity for growth without corresponding increases in infrastructure costs.

The dramatic decreases in per-user cost-savings can be attributed to three primary factors:

- 1) Advanced data management capabilities;
- 2) Support and maintenance efficiencies;
- 3) Hardware optimization; and
- 4) Savings associated with lower costs for administrator, student, and faculty training

### **Advanced Data Management Capabilities Drive 21% Decrease in Per-User Costs**

According to the study, the advanced security and data integration capabilities of Blackboard's enterprise solution deliver "more robust data management capabilities than previous versions of the software" and result in significant administrative efficiencies and cost-savings. Despite the projected growth in the number of users and courses, participating institutions anticipated a **21% decrease** in per-user costs associated with administering the Blackboard 5 enterprise platform.

Institutions may fear that an enterprise solution requires a dramatic increase in administration time and resources, however institutions reported that less than one additional full-time employee would be required to support, maintain, and administer the enterprise system. This again reinforces the conclusion that a scalable, enterprise platform can help institutions maintain the balance between growth and cost-efficiency.

Given today's challenge of recruiting and retaining IT professionals, the ability to implement and maintain an enterprise-solution with minimal additional staffing is a clear advantage for enterprise clients. To accomplish parallel growth on an entry-level product, institutions would require a larger number of administrators to manage the related hardware and data. With an enterprise solution, administrators are able to focus on adding value to the institution rather than the routine management of user data.

<sup>1</sup> For the purpose of this study, per user costs were determined by calculating the total cost of operating Blackboard, (including costs associated with: hardware, software, maintenance and support, administration, and training) and dividing that sum by the total number of users (including faculty, students, and other campus constituents).

## Defining The Value of an Enterprise Solution

100% of participating institutions reported a higher degree of satisfaction with the enterprise-level platform and believe that an enterprise solution offers greater value than an entry-level product.

### ■ Areas Producing Largest Institutional Cost-Savings

- Integration with SIS
- Ease of use
- Student and faculty satisfaction
- Scalability

### ■ Areas of Greatest Institutional Value

- Integration with student information system and Data automation
- Portal
- Security Integration/ Authentication
- Scalability

Institutions participating in the study also indicated that the overall cost of implementing Blackboard 5: Learning System and Community Portal System (Level Three) met their expectations and that there were no hidden costs involved in the implementation, contributing to increased client satisfaction.

### ***Support and Maintenance Efficiencies Deliver 51% Per-User Cost Savings***

According to the study, institutions believe that per-user support costs will be significantly lower for Blackboard's enterprise clients—delivering a **51% per-user cost-savings**, in spite of the 185% increase in users. This significant cost-benefit can be attributed to the platform's ability to integrate with Light-weight Directory Access Protocol (LDAP) servers. By centralizing all user passwords in one location with LDAP, institutions are able to reduce the frequency with which students require log-in support—thus decreasing the amount of time spent supporting the Blackboard platform.

To further outline the support and maintenance efficiencies of Blackboard, participating institutions reported that only half of their support and maintenance capacity is consumed by Blackboard-related activities, despite the record number of student and faculty using the platform. In addition, 80% of participants indicated that there was no significant increase in the cost to train support personnel to manage the enterprise version of Blackboard 5.

The *2001 Campus Computing Survey*, highlights user support as one of the most important issues for higher education institutions. Fortunately, Blackboard integration capabilities and unparalleled ease of use enables institutions to tackle support challenges and significantly decrease related costs. With the average user support ratio of 270 users per FTE position, the implications of the study have overwhelmingly positive consequences for institutions.

### ***Hardware Optimization***

Many institutions assume that increases in the scalability and technical sophistication of an enterprise platform are met with equivalent increases in hardware requirements. However, participants in this study revealed that the “scalability and efficient nature” of the enterprise version of Blackboard 5 allows institutions to accommodate 134% growth in the number of users with just a 33% increase in per-user hardware costs.

In fact, the relational database in the enterprise version of Blackboard 5 required fewer than two additional servers to support the massive growth, while supporting the same number of users on the entry-level product would have required a significantly more costly hardware investment. Study participants also identified the ability to share the required database and hardware across multiple applications as a financial benefit of more than \$32,000 on average.

In addition, 100% of the participating institutions reported that they transitioned from an entry-level tool to an integrated enterprise platform without requiring any upgrades to computers in labs, dorms, or classrooms, thereby helping institutions avoid countless hours of administrator effort and hardware expenditures.

## **Faculty, Student, and Administrator Training Costs Decrease by 59%**

The study also revealed that Blackboard's enterprise solution did not require additional training for administrators, faculty, or students—in fact participants indicated that their projected per-user training costs will decrease by 59% within one year of implementing the enterprise solution. Again, despite the projected growth in faculty and student usage over the next three years, per-user training costs have already decreased by 41% and are projected to further decrease each year the enterprise solution is in place. This unprecedented decrease in training costs can result in more than \$200,000 in savings for an institution with 10,000 users.

The unmatched ease of use of Blackboard 5 has been cited by many participants as a leading driver of cost-savings. Because the platform is intuitive for faculty, students, and administrators, institutions can apply fewer resources to training and more resources to teaching and learning.

### **Conclusion**

The study, *A Comparative Analysis of the Value of Enterprise-Wide Solutions to Entry-Level Course Management Systems*, delivers strong evidence that an enterprise solution can help institutions reduce e-Education infrastructure costs while supporting a continually increasing user base. In a time when user support and integrating technology into instruction are top priorities, an enterprise solution will help institutions accomplish their e-Education growth objectives while simultaneously decreasing their per-user costs.

**To learn more about this study contact  
a Blackboard sales representative today at  
1.800.424.9299 ext. 4.**

## **About the Study**

A comprehensive Web-based survey was used to collect information about Blackboard 5 Level Three and previous versions of Blackboard. Five institutions were selected to participate in the study based on their ability to meet pre-defined criteria. Data were analyzed and reported in aggregate fashion to maintain anonymity of individual institutions. To receive a full report, or for more information on the methodology of this study, contact your Blackboard sales representative today.



### **Washington, DC Campus:**

1899 L Street, NW, 5th Floor  
Washington, DC 20036  
202.463.4860  
202.463.4863 fax

### **Phoenix, AZ Campus:**

22601 North 19th Avenue, Suite 200  
Phoenix, AZ 85027  
623.476.1400  
623.476.1401 fax